13. The application of EU law from the national judge's perspective: a plea for an interdisciplinary approach[1]

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1. INTRODUCTION

The European Union (EU) operates on a highly decentralised level. The implementation and enforcement capacities of the EU and its institutions are limited[2] and, because of that, EU legal rules are for the most part implemented and applied by Member States' authorities rather than by the institutions that enacted them. In that respect, national judges of EU Member States play a crucial role. National judges are the first in line to enforce and apply EU law within the Member States,[3] and as the core enforcers of individuals' rights and obligations under EU law,[4] playing a critical role in the process of judicial protection in the EU.[5] It has been observed that 'national judges at all levels are potentially judges of [EU] law'.[6]

Notwithstanding the centrality of national judges in the EU architecture, the literature has started exploring their role as enforcers of EU law only recently. While there is extensive research on the relationship between the Court of Justice of the European Union (CJEU) and national courts, mostly with respect to their participation in the preliminary ruling procedure, only in the past decade have European legal and political scholars started emphasising the need

[1] The open access to Chapter 13 was generously supported by the University of Essex.

[2] R Kelemen, 'Eurolegalism and Democracy' (2012) 50(1) JCMS 55, 58.

[3] M Claes, *The National Courts' Mandate in the European Constitution* (Hart 2006), 3. In addition, existing literature has explored the enforcement of EU law by administrative bodies: see for instance O Cherednychenko, 'Regulatory Agencies and Private Damages in the EU: Bridging the Gap between Theory and Practice' (2021) 40 Yearbook of European Law 146; G Gentile, '"Verba Volant, Quoque (Soft Law) Scripta?" An Analysis of the Legal Effects of National Soft Law Implementing EU Soft Law in France and the UK' in M Eliantonio, E Korkea-aho and O Stefan (eds), *EU Soft Law In the Member States: Theoretical Findings and Empirical Evidence* (Hart Publishing 2020).

[4] U Jaremba and J Mayoral, 'Perspectives on Europeanization of National Judiciaries: Old and New Questions' (2016) iCourts Working Paper Series 59, 4 www.law.ox.ac.uk/sites/default/files/migrated/oscola_4th_edn_hart_2012.pdf accessed 30 June 2023.

[5] J Mayoral, U Jaremba and T Nowak, 'Creating EU Law Judges, the Role of Generational Differences, Legal Education and Career Paths in National Judges' Assessment Regarding EU Law Knowledge' (2014) 8(21) Journal of European Public Policy 1120, 1135.

[6] Claes (n 3), at 3; Lord Slynn of Hadley, 'What Is a European Community Law Judge?' (1993) 52(2) The Cambridge Law Journal 234, 240.

to focus on the level of national individual judges.[7] There is also increasing awareness among researchers concerning the limits of doctrinal research, which has traditionally dominated EU law scholarship.[8] The enforcement of EU law 'on the ground' is shaped by the personal, individual experience of judges. Case law, as the main data source of legal–doctrinal methods,[9] often does not capture this phenomenon. Therefore, the focus on the 'micro level' of application of EU law (that is, the judge), as opposed to the meso (that is, court) and the macro (that is, the entire national judiciary) levels, is crucial for the study of the enforcement of EU law. To understand the everyday application of EU law, we need to look beyond the CJEU, Member States and national courts and instead adopt a national judge-centred focus.

To address the limitations of legal–doctrinal methods, scholars studying the engagement of national judiciaries in the application of EU law started using methods common to social and political science research, including interviews, surveys, mixed methods and machine learning. From 2010 onwards, a new generation of scholars such as Nowak,[10] Jaremba,[11] Mayoral,[12] Coughlan,[13] Pavone,[14] Glavina[15] and Leijon[16] embarked on studies emphasising the importance of legal–sociological factors such as knowledge, preferences and experiences of judges for the way they use EU law in their day-to-day cases.

The aim of our chapter is threefold. First, it offers a systematic overview of traditional and novel methods employed to study the application of EU law from a national judge perspective. We seek to cast light on emerging research trends in this relatively underexplored domain of EU law enforcement.[17] Second, the chapter describes the advantages and pitfalls of these

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[7] M Glavina, 'National Judges as EU Law Judges: Evidence from Slovenia and Croatia' (PhD thesis, KU Leuven University 2020).

[8] A Dyevre, W Wijtvliet, and N Lampach, 'The Future of European Legal Scholarship: Empirical Jurisprudence' (2019) 26(3) Maastricht Journal of European and Comparative Law 348.

[9] R Posner, *Divergent Paths: The Academy and the Judiciary* (Harvard University Press 2016), cited in A Dyevre, W Wijtvliet and N Lampach, 'The Future of European Legal Scholarship: Empirical Jurisprudence' (2019) 26(3) Maastricht Journal of European and Comparative Law 348.

[10] T Nowak, F Amtenbrink, M Hertogh and M Wissink, *National Judges as European Union Judges* (Eleven International Publishing 2011).

[11] U Jaremba, 'Polish Civil Judges as European Union Law Judges: Knowledge, Experiences and Attitudes' (PhD thesis, 2012); Jaremba and Mayoral (n 4).

[12] Mayoral et al (n 5).

[13] J Coughlan, 'Judicial Training in the EU: A Study for the European Parliament' (2012) 13(1) ERA Forum 1.

[14] T Pavone, 'Revisiting Judicial Empowerment in the European Union: Limits of Empowerment, Logics of Resistance' (2018) 6(2) Journal of Law and Courts https://doi.org/10.1086/697371 accessed 30 June 2023.

[15] M Glavina, 'To Refer or Not to Refer, That Is the (Preliminary) Question' (2020) 16 Croatian Yearbook of European Law and Policy; M Glavina, 'The Reality of National Judges as EU Law Judges: Knowledge, Experiences and Attitudes of Lower Court Judges in Slovenia and Croatia' (2021) 17(1) Croatian Yearbook of European Law and Policy 1.

[16] K Leijon and M Glavina, 'Why Passive? National Judges' Motives for Not Requesting Preliminary Rulings' (2022) 29(2) Maastricht Journal of European and Comparative Law 263.

[17] While we take a judge-centred approach to studying the application of EU law, we do acknowledge that judges do not operate in a vacuum and that discussing the application of EU law

methods. Third, it advances suggestions on how to improve the application of these methods to legal questions concerning the study of national judges in the EU legal landscape.

Throughout the analysis we draw on personal experience, including challenges encountered when applying different methods to study the application of EU law from a national judge's perspective. The chapter focuses specifically on methods applied by scholars to study the enforcement of EU law by *individual* judges in particular. The research in this field is timidly advancing[18] yet exponentially growing, and the chapter contributes to this literature under a systematic and critical approach. While it systematises the interdisciplinary methods[19] used to study the application of EU law by national judges, the chapter also advances critical observations on the advantages and the drawbacks of specific methods. By casting light on the benefits and limitations of the discussed research methods, we seek to stimulate critical approaches and innovation on interdisciplinary studies in EU law.

The chapter begins its journey through the literature by exploring the advantages and disadvantages of doctrinal methods applied to study the application of EU law by national judges. It then moves on to the methods borrowed from other disciplines (such as sociology, political science and economics) that are increasingly used to study legal questions. This includes the use of interviews, surveys and data-processing techniques in law.

2. LEGAL RESEARCH: THE DOCTRINAL APPROACH TO THE APPLICATION OF EU LAW

The use of social and political science methods to study European courts and judges is a recent phenomenon, relatively unknown to European scholars until the late twentieth century.[20] This

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from a national judge perspective (micro level) also requires looking at diverse court-level (meso level) and Member State-level (macro level) factors.

[18] Indeed, there is a broad literature on the use of social- and political science methods to study judges developed in the US context (see C Pritchett, 'The Roosevelt Court: A Study in Judicial Politics and Values, 1937–1947' (1949) 64(2) Political Science Quarterly 306; J Segal and H Spaeth, *The Supreme Court and the Attitudinal Model* (Cambridge University Press 1993); L Epstein et al, 'Ideology and the Study of Judicial Behavior' in J Hanson (ed), *Ideology, Psychology, and Law* (Oxford University Press 2012) 705–28; G Schubert, 'The Judicial Mind: The Attitudes and Ideologies of Supreme Court Justices, 1946–1963' (1966) 81(3) Political Science Quarterly 448; L Baum, *Judges and Their Audiences: A Perspective on Judicial Behavior* (Princeton University Press 2008).

[19] This chapter uses the terms 'interdisciplinary' and 'empirical' interchangeably. Yet, we do acknowledge the difference between the two terms. The Merriam-Webster dictionary defines interdisciplinary as 'involving two or more academic, scientific, or artistic disciplines', while empirical research 'entails originating in or based on observation or experience'. We use the term 'interdisciplinary' predominantly when we discuss the use of research methods from social science, political science and economics in law. 'Empirical' on the other hand is used to describe the research methods where typically legal questions are answered by relying on empirical evidence, that is: observed data.

[20] While this chapter focuses on the EU and not the European Convention on Human Rights (ECHR) or the Council of Europe (CoE), the term 'European courts' in this case encompasses both the EU courts (the European Court of Justice, the General Court and Member States' courts)

was to a large extent because of the belief that courts and judges are outside of politics. Judges were seen as 'neutral law appliers rather than policy makers'.[21] The study of how judges decide cases was originally an 'all-American project'.[22] It is, thus, not surprising that the first scholars to study the courts in the EU were American political scientists. They provided not only new insights on the CJEU and its relationship with national courts but also new (empirical) data. By the turn of the century, American political scientists had published more work on the CJEU than on any other court, with the exception of the US Supreme Court.[23] Yet, before American political scientists 'discovered' the CJEU,[24] legal scholars conducted study of the EU's legal and judicial system. It is their work on which social scientists would later build their research.

2.1 Judge-centred Legal Research

The most notable work[25] on the CJEU and European legal integration, starting from the mid-1970s, was conducted by legal scholars such as Lecourt,[26] Stein,[27] Snyder,[28] Shapiro,[29] Rasmussen,[30] Lenaerts,[31] Arnull[32] and Weiler.[33] The majority of this research focuses on the CJEU, its development and national courts' acceptance and application of EU law doctrines,

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and the European Court of Human Rights (ECtHR). For a notable work on the ECtHR from an individual-judge perspective, see E Voeten, 'The Politics of International Judicial Appointments: Evidence from the European Court of Human Rights' (2007) 61(4) International Organization 669; E Voeten, 'The Impartiality of International Judges: Evidence from the European Court of Human Rights' (2008) 102(4) American Political Science Review 417; J Christoffersen and M Rask Madsen (eds), *The European Court of Human Rights between Law and Politics* (Oxford University Press 2011).

[21] M Shapiro and A Stone, 'The New Constitutional Politics of Europe' (1994) 26(4) Comparative Political Studies 398.

[22] A Dyevre, 'Unifying the Field of Comparative Judicial Politics' (2010) 2(2) European Political Science Review 297.

[23] A Stone Sweet, *The Judicial Construction of Europe* (OUP 2004) 1.

[24] This is a famous phrase coined by Mattli and Slaughter, 'Revisiting the European Court of Justice' (1998) 52(1) International Organization 177.

[25] Note that this is a partial selection. There was a large body of literature on the European courts at that time written predominantly by legal scholars.

[26] R Lecourt, *The Europe of Judges* (Bruylant 1976).

[27] E Stein, 'Lawyers, Judges, and the Making of a Transnational Constitution' (1981) 75(1) The American Journal of International Law 1.

[28] F Snyder, 'The Effectiveness of European Community Law: Institutions, Processes, Tools and Techniques' (1993) 56(1) The Modern Law Review 19; F Snyder, 'Soft Law and Institutional Practice in the European Community' in S Martin (ed), *The Construction of Europe: Essays in Honour of Emile Noël* (Springer Netherlands 1994), 197–225.

[29] Shapiro and Stone (n 21) 397.

[30] H Rasmussen, *On Law and Policy in the European Court of Justice: A Comparative Study in Judicial Policymaking* (Kluwer Academic Publishers 1986).

[31] K Lenaerts, 'Some Thoughts about the Interaction between Judges and Politicians (1992) 1992(1) University of Chicago Legal Forum 93.

[32] A Arnull, 'The Use and Abuse of Article 177 EEC' (1987) 52(5) Modern Law Review 622.

[33] J Weiler, 'The Transformation of Europe' (1991) 100(8) Symposium: International Law 2403; J Weiler, 'A Quiet Revolution' (1994) 26(4) Comparative Political Studies 510.

as well as on the relationship between national courts and the CJEU; only limited attention was paid to individual judges. This scholarship collectively falls into the category of normative legal research (also known as doctrinal research). Normative research on the role of national judges typically involves finding legal rules, principles and doctrines, either in legislation or in case law, to explore and analyse legal issues.[34] The aim of normative research is to develop an argument, theory or new concept that can address legal problems.[35] Legal scholars interested in the role of national judges in the EU, in that respect, try to explain, based on the case law of the national courts, national judges' acceptance of EU law doctrines and of their new duties demanded by EU membership, and how they should be transposed to national law.[36]

However, among the scholars who have engaged in these enquiries, we should mention several authors who initiated reflections on the empirical dimension of the application of EU law by national judges that go beyond following the letter of the law. Already in 1987, Arnull wrote on the 'use and abuse' of the preliminary ruling procedure. He expressed fears that the *CILFIT* criteria, which established exceptions to the obligation to refer,[37] could enable national top courts' judges 'to justify any reluctance they might feel to ask for a preliminary ruling'[38] and encourage them to decide points of EU law for themselves, even in cases where they should be decided by the CJEU. This was, at least to our knowledge, the first explicit reference to the existence of factors other than legal rules (that is, Article 267 Treaty on the Functioning of the European Union (TFEU)) that shape the decision to trigger a preliminary ruling procedure.

A couple of years later, Weiler formulated what is now known as the judicial empowerment thesis, which is the idea that lower court judges make ample use of the preliminary ruling procedure because it empowers them vis-à-vis their own higher national courts and their national government.[39] In a similar vein, Vink et al. attributed the reluctance of national judges to make a referral to the CJEU to their previous (bad) experiences, where the answer of the

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[34] T Christiani, 'Normative and Empirical Research Methods: Their Usefulness and Relevance in the Study of Law as an Object' (2016) 219 Procedia – Social and Behavioral Sciences 201.

[35] P Marzuki, *Legal Research* (Prenada Media 2005).

[36] T Magno, 'The Pupino Case: Background in Italian Law and Consequences for the National Judge' (2007) 8 ERA Forum 21; J Temple Lang, 'The Principle of Loyal Cooperation and the Role of the National Judge in Community, Union and EEA Law' (2006) 7(4) ERA Forum 476; T Ereciński, 'When Must National Judges Raise European Law Issues on Their Own Motion?' (2011) 11 ERA Forum 525; F Perrone, 'The Judicial Path to European Constitutionalism: The Role of the National Judge in the Multi-Level Dialogue' in P Pinto de Albuquerque and K Wojtyczek (eds), *Judicial Power in a Globalized World: Liber Amicorum Vincent De Gaetano* (Springer International Publishing 2019) 395–412; A Rosas, *The Court of Justice and the Construction of Europe: Analyses and Perspectives on Sixty Years of Case-Law – La Cour de Justice et La Construction de l'Europe* (Springer 2012); A Biondi, 'How to Go Ahead as an EU Law National Judge' (2009) 15(2) European Public Law 225; M Fichera and C Janssens, 'Mutual Recognition of Judicial Decisions in Criminal Matters and the Role of the National Judge' (2007) 8 ERA Forum 177; K Gombos, 'EU Law Viewed through the Eyes of a National Judge' (Conference: EU Legislative Drafting, October 2018).

[37] Case 283/81 *Srl CILFIT and Lanificio di Gavardo SpA v Ministry of Health* [1982] ECR 03415.

[38] Arnull (n 32) 626.

[39] Weiler 1991 (n 33) 2426.

Court was not helpful or where the ruling could not be used in the national decision.[40] They further argued that assuming the role of an EU law judge requires 'knowledge and expertise in European law, sensitivity to the characteristics of European law and the manner in which it has been developed by the ECJ, and the ability to take on a European perspective reaching beyond the national legal order'.[41] Worries over knowledge and abilities of individual judges were further raised by Kühn, who expressed scepticism on the ability of Central European judges to act as EU law judges.[42]

2.2 The Pitfalls of Judge-centred Legal Research

While the early contributions on the role of individual national judges in the application of EU law are important, they suffer from several pitfalls. The advantage of legal–doctrinal research is that it is able to reveal the complex structures of the law, with all their gaps and nuances, and the ways that these structures may be used, predominantly by legal practitioners or judges. When compared to empirical research, doctrinal research is the start of the process: without the knowledge of the complex legal structures, an empirical scholar 'has no idea whether what they are measuring has anything to do with the law'.[43] Yet, a new argument or theory that results from legal, normative research is rarely based on the experience of individual national judges.

The outcome of normative legal research looks at what the law ought to be, without taking the different experiences of individual judges into account. In other words, legal research might tell us how a national judge ought to apply specific EU law doctrines, but it tells us nothing about how EU law doctrines are applied *in practice* and, for example, what the challenges are that national judges face when using EU law in their daily work. While a traditional legal scholar is concerned with the question of 'what law is', an empirical scholar looks at extra-legal factors; for instance, how the society responds to the law or how it is affected by laws.[44] In turn, this line of enquiry enriches the understanding of how the law functions in practice. Analysing how judges ought to apply EU law loses value without an understanding of how EU law is applied on the ground.

Accordingly, political scientists criticised legal scholars studying the application of EU law by national judges for their reliance on the letter of the law and for the lack of attention paid to factors external to the law. For example, the most common critique of doctrinal research in the field of the application of EU law and judges' participation in the preliminary ruling procedure

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[40] M Vink, M Claes and C Arnold, 'Explaining the Use of Preliminary References by Domestic Courts in EU Member States' (11th Biennial Conference of the European Union Studies Association, April 2009) 8.

[41] ibid.

[42] Z Kühn, 'The Application of European Law in the New Member States: Several (Early) Predictions' (2005) 6(3) German Law Journal 576. Bobek too warned on the negative impact of textualism on the proper application of EU law. See M Bobek (ed), *Central European Judges under the European Influence: The Transformative Power of the EU Revisited* (Bloomsbury Publishing 2015) 13.

[43] G Davies, 'The Relationship between Empirical Legal Studies and Doctrinal Legal Research' (2020) 13(2) Erasmus Law Review 3.

[44] ibid.

is the excessive focus by legal scholars on the wording of Article 267(3) TFEU regarding the obligation to refer and the *CILFIT* criteria[45] when trying to explain divergences in national courts' participation in the preliminary ruling procedure. However, as studies show, 'no obligation to refer' is just one of many reasons why judges do not participate in the preliminary ruling procedure.[46]

Another pitfall of normative legal research is that legal scholarship tends to focus on grand constitutional cases or cases that have received a lot of attention in the media, thus creating a distorted picture of judicial activity. Scholars have criticised doctrinal research for focusing too much on the issues of human rights, citizenship and non-discrimination law, and for not providing an accurate picture of what the bulk of EU law is about.[47] For example, before becoming an Advocate General, Michal Bobek wrote that the everyday life of EU law

> is not defined by grand constitutional battles on the question of EU law supremacy over national law that reach the courts once in every ten years, but rather by thousands of dull tax cases, consumer protection actions, common customs tariff classification disputes, trans-border enforcement of small civil claims, companies' shareholders quarrels and so on.[48]

The focus on constitutional battles ultimately creates a selection bias and excludes other potentially important cases.[49] Dyevre and colleagues' analysis of EU legislation, for example, shows that there is a large discrepancy in legal scholarship on the one side and EU legislation and CJEU case law on the other. While economic integration remains the focus of EU law and CJEU rulings, an analysis of 4,000 articles from a leading EU law journal (Common Market Law Review, 'CMLR') reveals that legal scholars tend to emphasise fundamental rights issues more.[50] Thus, a reader going through a legal journal such as the CMLR might get the impression that the EU has moved away from the economic integration focus, while the legislative and judicial trends show this is not true. This confirms the critique that EU legal scholarship often engages in 'case law journalism', often recycling what the CJEU has to say about EU law.[51]

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[45] A Dyevre, M Glavina and A Atanasova, 'Who Refers Most? Institutional Incentives and Judicial Participation in the Preliminary Ruling System' (2020) 27(6) Journal of European Public Policy 912.

[46] Glavina (n 15); Leijon and Glavina (n 16).

[47] A Dyevre, M Glavina and M Ovádek, 'The Voices of European Law: Legislators, Judges and Law Professors' (2021) 22(6) German Law Journal 956.

[48] M Bobek, 'Of Feasibility and Silent Elephants: The Legitimacy of the Court of Justice through the Eyes of National Courts' in M Adams, J Meeusen, G Straetmans and H de Waele (eds), *Judging Europe's Judges: The Legitimacy of Case Law of the European Court of Justice* (Hart Publishing 2014) 200.

[49] Dyevre, Glavina and Ovádek (n 47).

[50] ibid.

[51] R van Gestel and H-W Micklitz, 'Why Methods Matter in European Legal Scholarship' (2014) 20(3) European Law Journal 292; R Van Gestel and H-W Micklitz, 'Revitalizing Doctrinal Legal Research in Europe: What About Methodology?' (2011) EUI Working Papers 2011/5 https://cadmus.eui.eu/handle/1814/16825 accessed 30 June 2023.

In a similar vein, van Gestel and Micklitz criticised legal scholarship for its tendency to engage in 'herd behaviour'.[52] Herd behaviour in the context of legal scholarship implies that scholars often follow 'hot' topics and trends initiated by the policy makers, most likely the European Commission, without questioning the broader context in which these were developed. As van Gestel and Micklitz write: 'there is an endless list of dissertations, books, articles, etcetera, which simply follow mainstream ideas and ideologies, often developed by policymakers or judges without questioning these critically and without discussing what these add to the existing body of knowledge.'[53] An important pitfall of legal research, according to authors, is not asking the right questions 'simply because [scholars] focus too much on EU lawmakers who see European integration as an ongoing process with no horizon and few constitutional limits'.[54]

Thus, while legal scholarship is an important step in any research on the Europeanisation of national judiciaries, it suffers from many pitfalls, which impede its ability to comprehensively study the application of EU law *in practice*. With legal scholars' main focus on the CJEU's case law and how it *ought* to be applied by national judges, the scholarship misses an understanding of how EU law *is* applied and of the different challenges which national judges face in their daily work.

3. EMPIRICAL PERSPECTIVES ON NATIONAL JUDGES AND EU LAW

This is where empirical legal research comes in. There is a growing body of research that tries to incorporate both legal and empirical research in explaining legal phenomena. Scholars have shown that doctrinal and empirical legal research are not necessarily conflicting methods but, when combined, can support each other – because without doctrinal legal research, the empirical research lacks a theoretical underpinning, and without empirical research, legal scholars are condemned to speculation.[55]

In what follows, we address different empirical research methods – namely, interviews with judges, survey research and big data and data-processing techniques – that have adopted a judge-centred perspective and shed light on the factors which have shaped experiences and attitudes of national judges towards EU law. We discuss epistemological benefits, challenges and pitfalls associated with each of these research methods, and how they compare to traditional legal methods.

3.1 Interviewing Judges

As a result of the late discovery of national judges and national courts as subjects of empirical social sciences dealing with the EU, only a limited number of studies use interviews when investigating the application of EU law. The results of the interview-based research have

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[52] Although we do acknowledge that the same criticism could be applied to other disciplines as well.

[53] Van Gestel and Micklitz (n 51) 9.

[54] ibid 9.

[55] Davies (n 43).

offered important insights into the attitude of national judges towards the application of EU law. These findings have also enabled supporting (or confuting) theses and doctrines developed in EU law scholarship.

For instance, inspired by the American legal consciousness literature – which is interested in the place of the law in the life of ordinary citizens[56] – Nowak and colleagues used semi-structured narrative interviews with Dutch and German judges from North-Rhine-Westphalia to better understand what might hinder or encourage the application of EU law by asking judges how they experience applying EU law, what they think about the application of EU law and how they acquire and evaluate their knowledge of EU law.[57] Interviews on the incentives and constraints regarding the application of EU law were later undertaken by Jaremba in Poland,[58] while Glavina interviewed judges in Slovenia and Croatia.[59] The studies painted a similar picture of how judges experience the application of EU law. First, a majority of judges apply EU law only sporadically; second, national judges consider their knowledge of EU law to be much lower than their knowledge of national law; and finally, the reasons for not applying EU law are mainly practical in nature (e.g. lack of time, knowledge and resources). The information from the narrative interviews helped to interpret these findings and put them into context. Later, Nowak and Glavina used the data from the narrative interviews to construct a typology on EU law application, using the words of the interviewees to flesh out different possible patterns of behaviour. They speculate that organisational incentives and constraints influence how judges apply EU law.[60]

Tatham provides an interesting addition to his legal analysis by using interviews to investigate the motivations of Hungarian judges to compare different language versions of European law. He interviewed a small group of (not anonymised) judges connected to specific cases in which language issues played a role to find out how judges deal with this problem in practice. He identified recent training in EU law and good foreign language competence as two major elements that encourage the applications of EU law.[61]

Furthermore, interview data collected by Pavone provided a basis for a critique of Weiler's judicial empowerment thesis, which was the dominant explanation of judicial behaviour in the preliminary ruling procedure for three full decades.[62] Pavone combined preliminary references data with more than 200 interviews conducted with Italian lawyers, judges and law professors, concluding that 'Weiler's (1991, 2426) statement that "lower national courts in particular made wide and enthusiastic use" of their dialogue with the ECJ is at the very least exagger-

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[56] P Ewick and S Silbey, *The Common Place of Law: Stories from Everyday Life* (Chicago University Press 1998); M McCann, 'On Legal Rights Consciousness: A Challenging Analytical Tradition' in B Fleury-Steiner and L Nielsen (eds), *The New Civil Rights Research: A Constitutive Approach* (Ashgate Publishing 2006) ix–xxx.

[57] Nowak, Amtenbrink, Hertogh and Wissink (n 10).

[58] Jaremba (n 11).

[59] Glavina (n 7); Leijon and Glavina (n 16).

[60] T Nowak and M Glavina, 'National Courts as Regulatory Agencies and the Application of EU Law' (2021) 43(6) Journal of European Integration 739.

[61] A Tatham, 'The Impact of Training and Language Competence on Judicial Application of EU Law in Hungary' (2012) 18(4) European Law Journal 592.

[62] Pavone (n 14).

ated'.[63] Pavone argues that scholars who followed Weiler's thesis underestimated various institutional constraints that discourage national judges from participating in the preliminary ruling procedure. He found that, although some judges use the preliminary ruling procedure as a means of empowerment, they are an exception rather than a rule. Instead, resistance towards Article 267 TFEU among national judges depends on three factors: (a) insufficient knowledge of EU law; (b) workload and time constraints; and (c) cultural aversion to invoking supranational legal rules to solve a national dispute.[64]

Other qualitative projects have explored the use of the preliminary ruling procedure by national judges. Krommendijk investigated lower court judges' motivations to refer, or not to refer, questions to the CJEU.[65] He interviewed Dutch and Irish judges and legal secretaries (45 in total) and concluded that the willingness to refer depends on how national judges perceive their judicial role on their knowledge of the preliminary ruling procedure, on the organisational structure and on the input from the parties. He did not find evidence for the legal empowerment thesis. In another article, he applies a similar approach to the highest Dutch administrative courts and the Dutch Supreme Court.[66] Glavina also studied the referral behaviour of judges.[67] She compares first and second instance courts in Croatia and Slovenia using data gathered with a mixed-method approach, including 32 interviews with judges. She concludes that 'the preliminary ruling procedure is largely determined by the court specialisation and the division of labour and resources within a national judicial hierarchy'.[68] Furthermore, Leijon interviewed 20 Swedish judges to find out judges' reasons for providing or not providing their own opinions in their referrals for a preliminary reference.[69] Claassen explored the motives of judges to refer questions to the CJEU and tested the empowerment thesis with the help of interviews with a small number of judges from different levels and specific legal fields.[70] He found support among national judges for use of the preliminary ruling procedure as an empowerment tool vis-à-vis their own national higher courts.

Most of these studies have in common that the interviews collect information from a sample of judges in order to make generalisable claims about national judges' experiences with the

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[63] ibid 325.

[64] ibid 314–15.

[65] J. Krommendijk, 'Why Do Lower Courts Refer in the Absence of a Legal Obligation? Irish Eagerness and Dutch Inclination' (2019) 26(6) Maastricht Journal of European and Comparative Law 770.

[66] J Krommendijk, 'The Highest Dutch Courts and the Preliminary Ruling Procedure: Critically Obedient Interlocutors of the Court of Justice' (2019) 25(4) European Law Journal 394.

[67] M Glavina, 'Judicial Hierarchy in the Preliminary Ruling Procedure: Exploring the Relationship between the First and Second Instance Courts' (2020) European Papers 5(2) 799 www.europeanpapers.eu/en/system/files/pdf_version/EP_eJ_2020_2_7_Articles_SS1_4_Monika_Glavina_00413.pdf accessed 30 June 2023.

[68] ibid.

[69] K. Leijon, 'Active or Passive: the National Judges' Expression of Opinions in the Preliminary Reference Procedure' (2020) 5(2) European Papers 871 www.europeanpapers.eu/en/system/files/pdf_version/EP_eJ_2020_2_10_Articles_SS1_7_Karin_Leijon_00416.pdf accessed 30 June 2023. See also Leijon and Glavina (n 16).

[70] J Claassen, 'Assessing the Strategic Use of the EU Preliminary Ruling Procedure by National Courts', in B Baade, D Burchardt, P Feihle, A Koppen, L Muhrel, L Riemer and R Schafer (eds) *Cynical International Law* (Springer 2021).

application of EU law.[71] They also share the use of semi-structured narrative interviews to explore the working of national judges. This kind of interview has the advantage over a closed interview of being able to discover new topics and arguments.

Narrative interviews are often combined with other methods of data collection, such as surveys. However, independent of the sequence, it is advisable at an early stage of the research to set up an expert group and/or focus group with which to discuss the survey questions and interview guide, adding another qualitative element to the mix. Nowak and colleagues, for example, employed an explanatory sequential design but made use of such groups in the preparatory phase before the survey was sent out in order to refine the survey questions but also to better understand the work of judges in general.[72] The survey then contained the option for judges to declare their willingness to be interviewed, thus efficiently using the access originally obtained for the survey and for recruiting the interviewees.

However, the studies often refrain from transcribing the full interviews. Some scholars use them as background information;[73] others include excerpts from the interviews to illustrate a point;[74] and only a few provide a summary of the interviews or a coded table.[75] Yet, there are advantages in reproducing the full interviews: for example, full transcripts would diminish the problem of replicability, as it would make the conclusions the researchers draw from the interview more transparent. As a matter of fact, the added value of the interviews is highest if the reader can read the interviewee's own words. The counterargument to this is that transcribing is a costly process. In any case, questions of what to do with the data collected in interviews, how to best present it and, most importantly, how to best protect the privacy of interviewees remain.[76]

In conclusion, interviews with judges can be a rewarding tool to explore the application of EU law in national courts. The studies presented here increased our general understanding not only of how judges perceive their role in the EU legal system but also of how they experience specific procedures. A growing body of interview data from different Member States opens possibilities for a comparative approach between jurisdictions. Nevertheless, this methodology is not free from hurdles.

3.1.1 The pitfalls of interview-based research with judges

The main practical challenge of using interviews and survey research on judges concerns access to the judiciary. Unlike access to other groups of interviewees, such as the general

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[71] Interviews can also serve the purpose of obtaining specific information or access to a particular document and to help design survey questions: K Goldstein, 'Getting in the Door: Sampling and Completing Elite Interviews' (2002) 35(4) Political Science and Politics 669.

[72] Nowak, Amtenbrink, Hertogh and Wissink (n 10).

[73] Dyevre, Glavina and Ovádek (n 47); A Dyevre, M Glavina and M Ovádek, 'Raising the Bar: The Development of Docket Control on the Court of Justice' (2012) 76 ZOR 523.

[74] Nowak, Amtenbrink, Hertogh and Wissink (n 10); J Krommendijk, 'Irish Courts and the Court of Justice of the EU: Explaining the Surprising Move from an Island Mentality to Enthusiastic Engagement' (2019) 5(2) European Papers 825; Krommendijk (n 65); Glavina (n 67).

[75] See Glavina (n 7).

[76] C McCormack, 'Storying Stories: A Narrative Approach to In-depth Interview Conversations' (2004) 7(3) International Journal of Social Research Methodology 219.

public or customers, access to judges is more complex. Studies by Nowak and colleagues[77] and Glavina,[78] for example, report several major difficulties with obtaining access to judges. First, the names of the judges and their email addresses are not publicly available and the only means of approaching them is through the president of a court. Second, in order to conduct the interviews or surveys with judges, the interviewers are often required to obtain permission from relevant authorities (such as the Ministry of Justice, the Council of the Judiciary, or the (Supreme) Court presidents). Receiving permission may be more or less time-consuming depending on the Member State: while in Croatia and Slovenia this took less than a month in total, Nowak et al. reported that obtaining the authorisation in North Rhine-Westphalia took several months, during which the process of data collection stood still.[79] The issuance of these authorisations can, thus, prolong the time required for data collection. If the permission is refused, the researcher is forced to choose a different research method.

Data collection is another obstacle for this research method to overcome. Some problems can be addressed by a purposive sampling strategy, which tries to generate a sample that is representative, for example, by including different levels of courts, different fields of law or different regions or Member States, thus increasing the variety of the selected data. Researchers may also struggle to figure out the right number of interviews to be conducted.[80] Arguably, this depends on the quality of the interviews and the homogeneity of the interviewees before data saturation is reached. For this reason, a research design in which the number of interviews can be adjusted to a certain degree in the course of the research is preferable. In the end, the research question decides what sample strategy is employed and how many interviews are conducted, ranging from a single-interview case study to very large sample sizes.[81] Although none of the studies discussed above seem to have suffered from a lack of willing interviewees, it might nevertheless be a challenge to first contact and then convince individual judges to participate. Nowak and colleagues, Jaremba and Glavina all used the survey which preceded the interviews to recruit interviewees, while Nir discusses utilising personal contacts, snowball sampling and cold-calling as promising recruitment methods for interviews with the judiciary.[82]

Another issue might be (self-)selection bias when recruiting the interviewees. In some cases, judges with EU law experience are selected on purpose, so this does not have to be a problem. Studies on EU law might attract more judges with an EU law background, even if the research question would require other judges to participate as well. Nir gives useful instructions for establishing first contact with judges.[83] The request for participation should include a clear presentation of the research and researcher, address concerns concerning con-

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[77] Nowak, Amtenbrink, Hertogh and Wissink (n 10).

[78] Glavina (n 7).

[79] T Nowak, 'Using Mixed Methods to Explore the Legal Consciousness of Judges' (2019) 2 SAGE Research Methods Cases 1.

[80] B Marshall, P Cardon, A Poddar and R Fontenot, 'Does Sample Size Matter in Qualitative Research? A Review of Qualitative Interviews in Research' (2013) 54(1) Journal of Computer Information Systems 11.

[81] O Robinson, 'Sampling in Interview-based Qualitative Research: A Theoretical and Practical Guide' (2014) 11(1) Qualitative Research in Psychology 25.

[82] E Nir, 'Approaching the Bench: Accessing Elites on the Judiciary for Qualitative Interviews' (2018) 21(1) International Journal of Social Research Methodology 77.

[83] ibid 82–5.

fidentiality and use of data such as ethical guidelines, informed consent and confidentiality safeguards, and stress the advantages of participation. To overcome these challenges, the call for judges to participate in interviews should be formulated in a way to encourage all relevant judges to participate.

Finally, the issues of data anonymisation and securing the privacy of the interviewees remain open. Because the process of conducting interviews inevitably involves gathering private information of interviewees and is followed (in most cases) by a face-to-face meeting, the anonymity of the participant can never be assured. Pseudonymisation is the only guarantee that the interviewer can offer to the interviewee. A common practice to achieve pseudonymisation is for researchers to pass a detailed and strict ethical approval before initiating the interview stage. The ethical impact evaluation of the interview also considers how the interviewers secure the privacy of the interviewees and of the collected data.

In short, and notwithstanding the explored challenges, qualitative interviews with judges put flesh on the bones of quantitative findings and help to understand the broader context in which judges operate; they can complement, confirm or explain findings from other sources, acquired by surveys, for example.

3.2 Conducting Survey Research among Judges

A new generation of scholars, such as Nowak,[84] Jaremba,[85] Mayoral,[86] Coughlan[87] and Glavina,[88] have begun investigating how national judges experience the application of EU law in their daily work, how much they know about EU law and its application and how they perceive their role as EU judges. What is common to these research efforts is the use of survey methodology to explore the Europeanisation of national judiciaries from a national judge perspective.

One of the earliest examples using survey questionnaires to study the application of EU law from a judge-centred approach dates back to 2007, when the European Parliament launched a survey of more than 2,300 judges and published a report on the role of the national judge in the European judicial system.[89] This was followed by the 2012 report on the state of judicial training in EU law at the EU and the national level.[90] Both reports illustrated significant disparities in the knowledge of EU law among the judges; limited awareness of the EU law; lack of knowledge of the preliminary ruling procedure; difficulties with accessing the information on EU law; perception of EU law as excessively complex and opaque; and the need to enhance judicial knowledge of EU law and foreign languages.[91]

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[84] Nowak, Amtenbrink, Hertogh and Wissink (n 10).

[85] Jaremba (n 11); Jaremba and Mayoral (n 4).

[86] Mayoral, Jaremba and Nowak (n 5).

[87] Coughlan (n 13).

[88] Glavina (n 15); Glavina (n 67).

[89] The survey included judges from 27 EU Member States, that is, all countries that were part of the EU in 2007.

[90] Coughlan (n 13).

[91] European Parliament Resolution of 9 July 2008 on the Role of the National Judge in the European Judicial System (Strasbourg: European Parliament, 2008).

Academic literature was not far behind. Shortly after the 2007 Parliament's Report, Nowak et al. conducted a survey among Dutch and German judges, emphasising the disparity between what has been written in the academic literature on the Europeanisation of national judiciaries and the reality of EU law application.[92] Nowak et al. have identified three general clusters of problems with the application of EU law: (a) judicial experiences with the application of EU law in their daily work; (b) judicial knowledge of EU law; and (c) attitudes of individual judges towards the EU, EU law or their new role as European judges.[93] Nowak and colleagues' survey on judicial knowledge, experiences and attitudes with regard to EU law was further employed in three research projects: Jaremba used it to survey Polish judges,[94] Mayoral to survey Spanish judges[95] and Glavina to survey Slovenian and Croatian judges.[96]

This research demonstrated that only a handful of judges know what the EU expects from them and how to apply EU law in their daily work. More importantly, some of these studies emphasised that judges' reluctance to refer to EU law in their cases or to send preliminary questions to the CJEU is not necessarily connected to their anti-EU sentiments but are rather of practical nature. Jaremba's and Glavina's studies, for example, revealed constraints connected to practical reasons such as heavy workload and insufficient access to resources.[97] Furthermore, these scholars emphasised the need to look beyond the level of the court and to focus instead on the level of national judges: as the latter, and not courts collectively or Member States, send preliminary questions to Luxembourg or implement the CJEU's rulings in their cases. They also criticised EU law scholars interested in judicial politics for focusing excessively on the country- and court-level determinants of judicial behaviour while ignoring the fact that most of these decisions are made at the judge level.

The importance of this work lies in unveiling the reality of national judges as EU law judges. They challenged the view of national judges as *juges communautaires de droit commun* who know and accept the duties and responsibilities that come with their new role. Yet, while using survey research on national judges unveils crucial aspects of the application of EU law at the national level, it suffers from several challenges and pitfalls that we discuss below.

3.2.1 The pitfalls of the survey research with judges

Similar to the problem reported in our previous section on interviews, the principal practical challenge of using survey research on judges is access to interviewees and thus data. Unlike with many other types of interviewees, access to judges is usually dependent on permission from relevant authorities and court presidents.[98]

Because the judiciary is a closed community, it is nearly impossible to get direct access to judges. Similar to what we already discussed above, names of the judges and their email addresses are not publicly available and the only means of approaching them is through the president of a court. This approach is problematic for several reasons. First, the court president

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92 Nowak, Amtenbrink, Hertogh and Wissink (n 10) 11–12.

93 ibid 13.

94 Jaremba (n 11).

95 J Mayoral Díaz-Asensio, 'The Politics of Judging EU Law: A New Approach to National Courts in the Legal Integration of Europe' (Thesis, European University Institute, 2013).

96 Glavina (n 7); Glavina (n 15).

97 Jaremba (n 11); Glavina (n 15).

98 See Section 2.1. See also Nowak et al (n 9); Glavina (n 7).

might refuse a request to survey judges at their court. In the case of Glavina's research, this occurred in two instances, where the courts' presidents openly refused to forward the survey to judges. Glavina reports one quote from a court president: 'My judges are too busy to participate in your survey.'[99] It is, however, impossible to know whether presidents of other courts who promised to forward the survey to judges did in fact do so. This leads to under-coverage, where some parts of the target population are not reached.[100] It can further result in a wrongly calculated response rate. If some judges never got the survey but were included in survey statistics, the recorded response rate might be lower than the actual rate.

Another pitfall of survey research with judges is a low response rate. The 2012 European Parliament study on the state of judicial training in the EU received 6,000 responses from judges and prosecutors, which represented 5 per cent of all judges and prosecutors in the EU. Academic research scores no better. When it comes to surveys on knowledge of, experiences with and attitudes towards EU law, the study by Mayoral scores lowest, with a response rate of only 2.3 per cent.[101] After that comes the study by Jaremba on Polish civil law judges, with a response rate of 8 per cent,[102] and Nowak and colleagues' study on German judges in the province of North Rhine-Westphalia, with a response rate of 10 per cent.[103] A somewhat higher response rate was obtained by Glavina on Croatian and Slovenian judges, at 16.6 and 14.7 per cent respectively.[104] Only the Netherlands scores higher, with a response rate as high as 32 per cent.[105] This discrepancy could be explained by the fact that Dutch judges are more used to filling in online surveys than judges from other countries under study.

While research efforts in general share the idea that a higher response rate yields more accurate survey results,[106] some studies have shown that surveys with lower response rates (or around 20 per cent) result in more accurate measurements than surveys with a high response rate (of 60 per cent and higher).[107] Yet, a low response rate is problematic as it can give rise to sampling bias where the non-response is unequal among the survey participants regarding the outcome. For example, if we ask judges about their attitudes towards the EU and EU law, judges with generally negative attitudes might not want to participate in the survey. The non-response bias may, therefore, show judges as more positive towards EU law than they actually are.

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[99] Glavina (n 7).

[100] Under-coverage in internet surveys often occurs because some parts of the target population do not have access to the internet. This is not the case for this research and the email survey that was used, as it is assumed that all judges and courts have full access to the internet and to email.

[101] Mayoral Díaz-Asensio (n 94).

[102] Jaremba (n 11).

[103] Nowak, Amtenbrink, Hertogh and Wissink (n 10).

[104] Glavina (n 7); Glavina (n 15).

[105] Nowak, Amtenbrink, Hertogh and Wissink (n 10).

[106] Y Baruch, 'Response Rate in Academic Studies: A Comparative Analysis' (1999) 52(4) Human Relations 421; T Mangione, *Mail Surveys: Improving the Quality* (vol 40, Sage 1995).

[107] P Visser et al, 'Mail Surveys for Election Forecasting? An Evaluation of the *Columbus Dispatch* Poll' (1996) 60(2) Public Opinion Quarterly 181; S Keeter et al, 'Gauging the Impact of Growing Nonresponse on Estimates from a National RDD Telephone Survey' (2006) 70(5) *International Journal of Public Opinion Quarterly* 759–79.

It is thus not surprising that studies do in general agree that a higher response rate is preferable, because missing data is never random. A high response rate from a small, random sample is preferred over a low response rate from a large sample.[108] Online surveys, however, do tend to score lower on the response rate than in-person and mail surveys, with an average response rate of 29 percent.[109] What researchers interested in judges could do to improve their response rate is randomly select courts to survey and build a good relationship with the court president, who is responsible for forwarding and inviting the judges to fill the survey.

Connected to the aforementioned sampling bias is a problem of self-selection bias, which occurs both in interview- and survey-based research. Participation in the survey is often not mandatory and respondents can decide for themselves whether or not to participate. Nevertheless, a survey on EU law is naturally more likely to attract judges on the pro-EU integration side than those on the anti-EU side of the dimension.[110] While anonymous participation in the survey might address this bias to some extent (giving judges on both sides of the EU integration dimension the possibility to anonymously give their opinion on EU law), those less positive about the EU and EU law may simply ignore the survey. This creates a self-selection bias, where the sample is not representative of the composition of the judiciary. This would result in biased estimates that are only valid for the group of the population that responded to the survey.

Another methodological pitfall of surveys concerns the measurement tool. Measuring the attitudes of political elites, including judges, is a difficult task. This is because political elites are not very likely to fill in questionnaires, or at least to 'fill them out honestly'.[111] For this reason, scholars have resorted to using votes in judicial deliberations as explanations for judges' behaviour.[112] The core problem of using votes to explain one's behaviour, however, is that the measure for the independent variable is the same as the measure for the dependent variable. In other words, what was assumed problematic is using judges' past votes as a measure for their present or future votes.[113] One reason why scholars often rely on different proxies to measure judicial attitudes is that conducting survey research among top court judges may not be possible, or, at least, such measures would not be scientifically reliable.[114] For instance, because the highest levels of judiciary host only a handful of justices, they could not be granted anonymity and their answers could not be taken as valid. This problem is less pressing when doing surveys among lower court judges. There are hundreds or even thousands of lower court judges in a country. This allows them to keep their anonymity and reveal their genuine

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[108] N Lindemann, 'What's the Average Survey Response Rate? [2021 Benchmark]' (*Survey Anyplace*, 9 August 2021) https://surveyanyplace.com/blog/average-survey-response-rate/ accessed 30 June 2023.

[109] ibid.

[110] Glavina (n 7).

[111] J Segal and H Spaeth, *The Supreme Court and the Attitudinal Model Revisited* (Cambridge University Pres 2002) 320. The same could, however, also be said about interviewing political elites: they too might not give honest answers to the interviewer's questions.

[112] L Epstein, W Landes and R Posner, *The Behavior of Federal Judges: A Theoretical and Empirical Study of Rational Choice* (Harvard University Press 2013).

[113] L Epstein and C Mershon, 'Measuring Political Preferences' (1996) 40(1) American Journal of Political Science 263; Segal and Spaeth (n 111) 321.

[114] Segal and Spaeth (n 111) 322.

ideological preferences. Furthermore, unlike top court justices, lower court judges are not very often political elites or public figures, so their opinions are less likely to be subject to media attention and public scrutiny.

Further, using self-assessment reports for gathering data attitudes and respondents' perception of external environmental variables has often been portrayed as problematic. This is because, first, measures of these types of variables are not verifiable by other means and, second, the self-assessment approach asks judges to fill in the survey based on their own self-knowledge. Such an approach has several limitations. First, people tend to overestimate their capacities;[115] second, the validity of the data depends very much on the sincerity of the respondents when answering the survey questions.[116] There are, however, many advantages of using self-assessment reports. First, no one else has access to more information about oneself than oneself. A person can give many retrospective details about his knowledge and behaviour that others might not be aware of.[117] Sundström, for example, found that having more expertise in the subject of the study (oneself) brings a more accurate self-assessment of one's competences.[118] Respondents are also likely to be more motivated to talk about themselves than about others.[119] Motivation, in addition, has been found to be the strongest predictor of the validity of self-assessment reports.[120] In a nutshell, people are more motivated to fill in the questionnaires about their own behaviour and when they are motivated, the validity of the self-assessment report will rise. Furthermore, the studies we introduced at the beginning of this section show that judges have a realistic picture of their expertise and competences and are not afraid to admit their scarce experience with and limited knowledge of EU law.[121] We, thus, defend the idea that judges are in the best position to assess their knowledge of, experiences with and attitudes towards EU law, especially when other sources of this information are missing.

Further methodological problems arise when both dependent and independent variables are collected from the same source, which is also known as the problem of common method variance.[122] In this research we acknowledge the problems associated with the use of self-reports, yet we also emphasise that there is no realistic alternative to exploring judicial attitudes, knowledge and experience with EU law. For example, looking at the total number of preliminary questions would not be very useful as judges in some Member States or from a specific

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[115] J Kruger and D Dunning, 'Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments' (1999) 77(6) Journal of Personality and Social Psychology 1121; T Sitzmann et al, 'Self-Assessment of Knowledge: A Cognitive Learning or Affective Measure?' (2010) 9(2) Academy of Management Learning & Education 169.

[116] Mayoral, Jaremba and Nowak (n 5).

[117] D Paulhus and S Vazire, 'The Self-Report Method' in R Robins, R Fraley and R Krueger (eds), *Handbook of Research Methods in Personality Psychology* (Guilford Press 2007), 227.

[118] A Sundström, *Self-Assessment of Knowledge and Abilities: A Literature Study* (Institutionen for beteendevetenskapliga mätningar 2005), 19; Mayoral, Jaremba and Nowak (n 5) 1122.

[119] Paulhus and Vazire (n 117) 227.

[120] Sitzmann et al (n 115) 169.

[121] Nowak, Amtenbrink, Hertogh and Wissink (n 10); Mayoral Díaz-Asensio (n 95); Jaremba (n 11); Mayoral, Jaremba and Nowak (n 5).

[122] P Podsakoff and D Organ, 'Self-Reports in Organizational Research: Problems and Prospects' (1986) 12(4) Journal of Management 533.

court submitted a very low number of preliminary questions to the CJEU. Furthermore, very few attempts have been made to estimate the number of cases involving EU law that do not end in a referral.[123] Looking directly at the case law would, however, be challenging as judgments of the first instance courts in many countries are not published online. A researcher should, thus, be prepared to enter a court's archives and manually analyse decisions of interest. Taking these limitations into account, survey research might be the only way to assess judicial attitudes, experiences and knowledge when it comes to the application of EU law.

While some of the aforementioned pitfalls of survey research on judges, such as low response rate or self-selection bias, are more difficult to address, others might be tackled by adopting a mixed-method research design. The combination of the survey- and interview-based research methods offers a more complete overview of EU law application by national judges. In addition, survey research allows hypothesis testing and deriving generalisable results. Interview-based research, by contrast, complements the data obtained through the questionnaires and facilitates their interpretation. Complementing survey and interview with big data collection could also potentially solve the common method variance problem described above, as it would prevent both dependent and independent variables from being collected from the same source.

3.3 Algorithms, Big Data and Machine Learning

Another emerging interdisciplinary research method applied in the legal field involves reliance on big data, machine learning and data-processing techniques. While big data analysis methods permit drawing conclusions based on large data sets through specific systems, software and methods, machine learning may be employed to achieve different results, ranging from text analysis to predictive models to foresee, for instance, judgments' outcomes.[124] These methods provide novel findings on the attitudes of national judges towards EU law, especially to identify correlations between judges' approaches to EU law and the factors shaping those attitudes.

At the same time, the aspiration of these novel methods might not lead to the desired level of objectivity: because of the choice of parameters and thus data and the limited scope of datasets, these studies may be affected by biases and assumptions, which undermine their reliability. Hence, in order for these methodologies to add value to the study of the national attitude of national courts towards the application of EU law, transparency on the data used, in particular, the level of granularity are of the essence. Transparency should also apply to the weight that is assigned to the variables and data used by algorithms and how it impacts the final outcome of algorithmic processes.[125]

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[123] D Hübner, 'The Decentralized Enforcement of European Law: National Court Decisions on EU Directives with and without Preliminary Reference Submissions' (2018) 25(12) Journal of European Public Policy 1817; D Hübner, 'The "National Decisions" Database (Dec.Nat): Introducing a Database on National Courts' Interactions with European Law' (2016) 17(2) European Union Politics 324.

[124] M Medvedeva, M Vols and M Wieling, 'Using Machine Learning to Predict Decisions of the European Court of Human Rights' (2020) 28 Artificial Intelligence and Law 237.

[125] B Lepri, N Oliver, E Letouzé, A Pentland and P Vinck, 'Fair, Transparent and Accountable Algorithmic Decision-making Processes: The Premise, the Proposed Solutions, and the Open Challenges' (2018) 31 MIT Press 611.

The literature reflecting on the role of national judges in the application of EU law via the lenses of big data and machine learning (while still sporadic) is progressively increasing. As observed by Dyevre and Lampach,[126] several studies have dissected the various influences exercised over national judges and how they shape judges' decisions to refer preliminary questions to the CJEU. They demonstrate that national judges use a cost–benefit analysis when considering the opportunity to turn to the CJEU. In particular, Dyevre and Lampach offer evidence that three factors in particular shape the judicial dialogue between the CJEU and national courts. These are: (1) familiarity with EU law; (2) self-empowerment motives arising from institutional restrictions on the exercise of judicial review; and (3) political fragmentation. When these elements may be traced with reference to national courts, the likelihood of referrals is higher.

Other studies have relied on measures, such as the number of graduates from the College of Europe in Bruges per Member State,[127] presumed to be proxies for familiarity with EU law and EU institutions. Namely, authors such as Hornuf and Voight have relied upon three factors to determine the propensity to the preliminary ruling of national judges: the economic structure of the State of origin; familiarity with EU law; and tenure of democracy as new determinants. While this study provides important reflections on the personal experience of judges with EU law and how that can influence their approach towards the enforcement of that law, the choice of the data to measure parameters such as familiarity may be controversial. For instance, can it be said that a judge who attended the College of Europe will be automatically more prone to apply EU law? The likelihood is evident, but whether there is a direct correlation is debatable.

Machine learning also brings important advantages in the research regarding case law, including national jurisprudence. As explained by Wijtvliet, machine learning can be successfully used to summarise judgments and gather the most important information of a judicial decision.[128] This is one of the methods applied in the context of the 'EUTHORITY' project, which seeks to determine the position of peak courts in the Member States towards EU law.[129] A similar large-scale project is JUDICON-EU,[130] which focuses on the strength of judicial rulings of the constitutional courts in the EU. In addition, the project offers important empirical insights into dissenting opinions of constitutional court judges in Europe, a research agenda typically reserved for the US Supreme Court[131] or the European Court of Human Rights

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[126] N Lampach and A Dyevre, 'Choosing for Europe: Judicial Incentives and Legal Integration in the European Union' (2020) 50 Eur J Law Econ 65.

[127] L Hornuf and S Voigt, 'Analyzing Preliminary References as the Powerbase of the European Court of Justice' (2015) 39(2) European Journal of Law and Economics 287.

[128] W Wijtvliet, 'Using Machines in Law: Automated Case-law Summaries' (*KU Leuven CiTiP*, 25 April 2019) www.law.kuleuven.be/citip/blog/using-machines-in-law-automated-case-law-summaries/ accessed 30 June 2023.

[129] See 'Welcome' (*EUTHORITY*) https://euthority.eu/ accessed 30 June 2023.

[130] See https://judiconeu.uni-nke.hu/ accessed 30 June 2023. K Pócza (ed), *Constitutional Politics and the Judiciary: Decision-making in Central and Eastern Europe* (Routledge 2018).

[131] J Kastellec, 'Panel Composition and Judicial Compliance on the US Courts of Appeals' (2007) 23(2) Journal of Law, Economics, & Organization 421; C Pritchett, *The Roosevelt Court: A Study in Judicial Politics and Values 1937–1947* (The Macmillan Company 1948).

(ECtHR).[132] The methods used in these projects could be successfully applied to carry out research on individual judges in the EU. For instance, JUDICON-EU's approach connecting courts' rulings to specific judges could allow exploring the impact of national courts' presidents on the outcome of final rulings.

Another study relying on machine learning methods which deserves attention addressed two questions: first, whether national courts defer to the CJEU politically sensitive cases; second, whether national courts frame their preliminary ruling requests by expressing support for an integration-friendly interpretation of EU law or by voicing an opinion in defence of the challenged national law. Leijon hand-coded cases decided in the context of preliminary ruling requests and found that the judicial empowerment thesis is partially incorrect.[133] Using her words: 'National courts are not keeping the gate to the domestic legal sphere firmly shut to effectively shield domestic policies from EU legal intrusions.'[134] According to Leijon, national courts consistently strive 'to strik[e] a balance between the interests of the member states and the interests of the EU'.[135]

Finally, we should also consider as falling into this category the studies that were carried out with reference to the CJEU, but whose application may be extended also to national courts. Malecki has developed a statistical model to analyse the individual preferences of judges sitting at the CJEU.[136] This research is of relevance because it analyses the background of EU judges to illustrate that the Luxembourg Court does not act as a 'uniform' actor and that different views on the development of EU law are expressed within the individual chambers of the Court. This methodology may shed light also on the behaviour of national courts, especially when judges are sitting in chambers with more than one member and there are no dissenting opinions published.

In light of the provided overview, we may conclude that these methods have significant potential for casting light on the attitude of national judges towards EU law. Yet, they also have limitations.

3.3.1 Pitfalls of big data and machine learning techniques for a judge-centred approach

First, there is an issue of data availability, which translates into limited (or even sometimes biased) datasets. As a matter of fact, access to documents may be challenging and, consequently, building reliable databases may become highly complex. In many instances, national courts do not publish judgments, especially courts of first instance. As a result, scholars tend to focus on the case law of supreme courts and thus might not be able to capture the entirety of the judicial system's approach to EU law. However, the figures emerging from supreme courts

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[132] E Voeten, 'The Impartiality of International Judges: Evidence from the European Court of Human Rights' (2008) 102(4) American Political Science Review 417.

[133] Karin Leijon, 'National Courts and Preliminary References: Supporting Legal Integration, Protecting National Autonomy or Balancing Conflicting Demands?' (2021) 44(3) West European Politics 510.

[134] ibid.

[135] ibid 524.

[136] Michael Malecki, 'Do ECJ Judges All Speak with the Same Voice? Evidence of Divergent Preferences from the Judgments of Chambers' (2012) 19(2) Journal of European Public Policy 59.

are intrinsically partial: only few cases end up before supreme courts. These settings create a selection bias hindering the database creation.

This shortcoming becomes evident in Hübner's study. She introduced the 'National Decisions Database' ('Dec.Nat') which contains several thousand national decisions involving EU law. Although Dec.Nat is an important source of information on national courts' enforcement of EU law (both inside and outside of the preliminary ruling procedure), the database suffers from several shortcomings. To begin with, Dec.Nat covers those national decisions that the CJEU, its administrators and/or national courts consider relevant for the monitoring of national case law with respect to EU law. This criterion creates a selection bias: the dataset does not include all decisions with an EU law element, but merely those regarded as 'important' by the court's personnel. Furthermore, since 2003 and under resource constraints, the database has been limited to decisions issued by national courts of last instance. Last instance courts' decisions are further limited to those that consider 'innovative points of law and legal reasoning'.[137] The jurisprudence of first and second instance courts – the most numerous courts across the EU that solve millions of disputes every year – is, thus, not captured by the database. What is more, some courts do not work with or publish dissenting opinions and the role of individual judges may not be successfully taken into account by these methods. As a result, the dataset may not only be limited but also, to a certain extent, biased and not objective. It will follow that also the results of the analysis are likely to be biased.

Another limitation of this type of study, and the methodologies which may affect their reliability, is linked to the choice of the parameters for the algorithms employed in the study. As mentioned above, some studies have measured the 'familiarity' of national judges with EU law. In order to do so, several variables have been considered, such as the attendance of course at the College of Europe in Bruges. While this type of parameter may be positively linked to a higher familiarity with EU law, it is still debatable whether those judges may be presumed to be familiar with EU law. As a matter of fact, if judges stop updating themselves on the developments of EU law, this parameter appears quite insignificant to measure the familiarity of judges with EU law.

To overcome these pitfalls, scholars should be guided in their research by a high degree of transparency both regarding the methods used as well as the data. In particular, academics should strive to use granular data, that is, data which to the greatest degree possible is not aggregated or already processed. In this way, the risk of replicating biases affecting previous studies or datasets may be avoided. Additionally, granular data reproduces in a more loyal manner the behaviour of individual judges and thus can lead to more accurate results.

Finally, a constraint on the impact of these methodologies to shed light on the enforcement of EU law is the still limited expertise in algorithmic analysis and machine learning by legal and socio-political scholars. This scarcity has two consequences. First, the ability to perform studies including machine learning and algorithmic analysis is reserved to a handful of experts who may not have a legal background. Therefore, these experts need to cooperate with lawyers, legal scholars or political scientists to devise the research questions and interpret the results of the algorithm. Second, and consequently, questions arise about training for legal scholars: the full potential of machine learning and algorithmic analysis to cast light on the enforcement of EU law by national judges may be achieved only if EU lawyers have the skills

[137] Hübner (n 123).

necessary to undertake these complex methods. It is in fact the view of the authors that, as for other research methods explored above, also machine learning and algorithmic analysis in the study of national judges' application of EU law would benefit from a theoretical knowledge of EU law and the relevant legal–doctrinal scholarship. In other words, doctrinal research and machine learning and algorithmic analysis should reinforce each other through a synergic process. In the absence of legal scholars trained in data science, a way to address this shortcoming is to create interdisciplinary teams composed of lawyers and data scientists.

4. CONCLUSION

Interviews, surveys and data processing help us to better understand the processes and the behaviour of judges and judicial decision making. These studies explore attitudes and experiences of judges, the reasons and propensity to request a preliminary question and the judicial empowerment thesis. According to this stream of research, practical (e.g. knowledge, language, time) and professional considerations (e.g. judicial role, place in hierarchy, reputation) seem to inform the application of EU law. Existing studies also identify obstacles and incentives which judges encounter while applying EU law. Moreover, they put to the test some of the earlier assumptions on how national judges would behave.

Despite their shortcomings, such as selection bias, research duration and difficulty in accessing judges and court documents, these methods make it possible to explore the application of EU law by national judges in more depth. Studying the level of individual judges does not mean neglecting the national organisational, structural and judicial context in which judges operate (the meso- and macro-levels), but explicitly addressing them and including them in the research. In this sense, the interdisciplinary methods explored in this chapter should work in synergy with doctrinal legal scholarship: doctrinal research is the start of the process; without knowledge of the complex legal structures, an empirical scholar 'has no idea whether what they are measuring has anything to do with the law'.[138]

Hence, we invite other scholars interested in courts and judges in the EU to experiment with and thus venture into interdisciplinarity, which, as illustrated, can lead to interesting, more in-depth findings on the application of EU law in the national jurisdictions. We hope that our chapter aids the next generation of scholars interested in application of EU law from a judge's perspective to select the most appropriate research method (or a combination thereof) to answer their research questions.

[138] Davies (n 43).